



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,925	11/21/2003	William J. Carroll	000309-00051	7556
27557	7590	02/03/2006	EXAMINER	
BLANK ROME LLP			GETZOW, SCOTT M	
600 NEW HAMPSHIRE AVENUE, N.W.			ART UNIT	
WASHINGTON, DC 20037			PAPER NUMBER	

3762

DATE MAILED: 02/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

SP

Office Action Summary	Application No. 10/717,925	Applicant(s) CARROLL ET AL.	
	Examiner Scott M. Getzow	Art Unit 3762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15, 17-21, 23-35 and 37-39 is/are rejected.
- 7) ☒ Claim(s) 16, 22 and 36 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/3/04, 6/22/04</u> | 6) <input type="checkbox"/> Other: ____ |

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 25-35 are rejected under 35 U.S.C. 102(b) as being anticipated by Silverstone (6161044).

Silverstone teaches at least two pair of electrodes connected to a pulse generator in a TENS device. Col. 2, lines 37+ teach that typical TENS devices have a pulse generator, col. 3, lines 6 + teach that sinusoidal waveforms are well known. Col. 9, lines 45+ teach digital signal generation as well as electrodes on the skin of a patient, and the ability to produce a square wave. Re claim 31,32, no structure is set forth, merely an intended way of positioning the electrodes.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 37-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Silverstone.

The method steps of the above claims are deemed to have been obvious to the ordinary artisan. For example, one would want to vary the position of the electrodes in order to more effectively stimulate the patient's nervous system. Further, to apply stimulation continuously would be seen as desirable if required to effectively treat the patient.

5. Claims 1-15,17-21,23,24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Silverstone in view of Pless (US 2002/0169485, 10/121933).

Silverstone teaches all of the subject matter of the above claims except for the explicit mention of an approximate sine wave being generated. Pless teaches a sine wave 612, see figure 6, and paragraph 109. To utilize a sine wave would have been obvious since such has been shown to have wide applicability in treating patients, to modulate neural activity. Further, the circuitry shown in figure 5 of Pless is considered to be analogous to the digital signal processor called for in the claims. Also, the use of a field programmable gate array would have been seen to have been an obvious variant over the digital signal processor, since the ordinarily skilled artisan would be well aware that either one can be used in devices that use digital signal technology. Claims 5,6,11,12 are considered to no further limit the structure of the claims.

Art Unit: 3762

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Esteller, et al, col. 8, lines 28 teaches the use of digital signal processing as well as field programmable gate arrays.

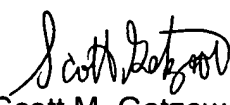
Allowable Subject Matter

7. Claims 16,22,36 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott M. Getzow whose telephone number is (571) 272-4946. The examiner can normally be reached on M-F, 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Sykes can be reached on (571) 272-4955. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Scott M. Getzow
Primary Examiner

Application/Control Number: 10/717,925

Page 5

Art Unit: 3762

Art Unit 3762

SMG